



Effects of cold weather on mortality: Results from 15 European cities within the PHEWE project

Author(s): Analitis A, Katsouyanni K, Biggeri A, Baccini M, Forsberg B, Bisanti L, Kirchmayer U, Ballester F, Cadum E, Goodman PG, Hojs A, Sunyer J, Tiittanen P, Michelozzi P
Year: 2008
Journal: American Journal of Epidemiology. 168 (12): 1397-1408

Abstract:

Weather-related health effects have attracted renewed interest because of the observed and predicted climate change. The authors studied the short-term effects of cold weather on mortality in 15 European cities. The effects of minimum apparent temperature on cause- and age-specific daily mortality were assessed for the cold season (October-March) by using data from 1990-2000. For city-specific analysis, the authors used Poisson regression and distributed lag models, controlling for potential confounders. Meta-regression models summarized the results and explored heterogeneity. A 1 degrees C decrease in temperature was associated with a 1.35% (95% confidence interval (CI): 1.16, 1.53) increase in the daily number of total natural deaths and a 1.72% (95% CI: 1.44, 2.01), 3.30% (95% CI: 2.61, 3.99), and 1.25% (95% CI: 0.77, 1.73) increase in cardiovascular, respiratory, and cerebrovascular deaths, respectively. The increase was greater for the older age groups. The cold effect was found to be greater in warmer (southern) cities and persisted up to 23 days, with no evidence of mortality displacement. Cold-related mortality is an important public health problem across Europe. It should not be underestimated by public health authorities because of the recent focus on heat-wave episodes.

Source: <http://dx.doi.org/10.1093/aje/kwn266>

Resource Description

Communication: ☒

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: ☒

audience to whom the resource is directed

Health Professional

Exposure : ☒

weather or climate related pathway by which climate change affects health

Climate Change and Human Health Literature Portal

Temperature

Temperature: Extreme Cold

Geographic Feature: ☒

resource focuses on specific type of geography

None or Unspecified

Geographic Location: ☒

resource focuses on specific location

Non-United States

Non-United States: Europe

Health Impact: ☒

specification of health effect or disease related to climate change exposure

Injury

Medical Community Engagement: ☒

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation: ☒

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: ☒

populations at particular risk or vulnerability to climate change impacts

Children, Elderly

Resource Type: ☒

format or standard characteristic of resource

Research Article

Timescale: ☒

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☒

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content

